1815. Oken.—Lehrb. Naturg. I., p. 717, restricts the genus Lycaena mainly to the "blues," referring to it all the species mentioned by Fabricius in 1807 except rubi, virganreae and phlaeas. (He adds many others.)

The type of Lycaena must be one of this further restricted list mars, echion, amyntas, endymion, arion, coridon, adonis, ledi.

1816. Dalman.—" Försök. sys. Upp. Sver. Fjar.," Vet. Acad. Hand. XXXVII. 69, 90, definitely restricts the "coppers" hippothoë, rirgaureae, phlaeas, helle and garbas and rubi, to the genus (subgenus) Heades.

The type of *Heodes* must be one of these species. He places the "blues," which Oken had already included in his *Lycaena*, in the genus *Cyaniris*, which name cannot be maintained for any individual species of those particular Fabrician species placed by Oken in his *Lycaena*.

1824. Curtis.—Brit. Ent., plt. 12, designated phlaeas as the type of Lycaena. This is impossible owing to the previous action of both Oken and Dalman.

The type of Lycaena must therefore be one of the remaining species mentioned by Fabricius in his list of 1807, viz., mars, echion, amyntas, endymion, coridon, adonis, ledi, arion.

Ignorant of, or ignoring, the action of both Oken and Dalman the name Lycaena has been employed for many groups of "coppers" and "blues," until

1838. Thon.—Allg. Ency. Wiss. XI., p. 139, cities arion only for the genus Lycaena.

This action settled once for all that Lycaena arion was the type. No doubt some of the later confusion has occurred owing to Scudder, Hist. Sketch, having omitted to mention the action of Thon in 1838. Barnes and Lindsay, Ann. Ent. Soc. Am. in 1922, omitted both Oken and Thon, making matters still worse.—Hy.J.T. [After the above was in print I bethought myself of Tutt's article in Vol. VIII., p. 306 et sq. of his Nat. Hist. of British Lepidoptera where the whole question is most fully dealt with in extenso.]

New Aberrations of, and Miscellaneous Notes on, Coccinellids.

By G. CURTIS LEMAN, F.E.S.

A. Hippodamia variegata, Goeze.

Herr L. Mader of Vienna in his "Evidenz der paläarktischen Coccinelliden und ihrer Aberrationen" (which is coming out in parts with plates in Zeitschrift des Vereines der Naturbeobachter und Sammler) figures certain aberrations, to which he has given no names and with his approval I propose to name them :

1. ab. internepunctata, mibi. Formula: $\frac{1}{2}$, 3. (Mader's plate 9, fig. 27.)

2. ab. maderi, mibi, n.ab. Formula: $\frac{1}{2}$, 1+2+3 (triangular blotch), 4, 5, 6. (plate 12, fig. 21.)

3. ab. caprai, mihi, n.ab. Formula; 1+2+3 (triangular blotch) $+\frac{1}{2}$ (confluent with 3), 4, 5, 6. (plate 12, fig. 23.)

4. ab. walteri, mihi, n.ab. Formula: 1+2+3 (triangular blotch) $+\frac{1}{2}$ (confluent with 3), 4+5, 6. (plate 12, fig. 25).

5. ab. ancora, mihi, n.ab. Formula: 1+2+3 (triangular blotch) $+\frac{1}{2}$ (confluent with 3) +5+4, 6. (plate 12, fig. 26.)

I do not agree with Mader's figure 22 on plate 12 as the typical ab. *orientalis*, Ws., whose formula in his B-T. 1879 is: 1+2+3 (dreilappige makel), 4+5 (eine eckige Binde), with the apex touching the above "makel" (die vorn fast die makel erreicht), 6. His figure gives the "dreilappige makel" and 4+5 with spot 5 converging towards, but not reaching, the "makel."

Mader also makes ab. blairi, Lem., a synonym of ab. orientalis, Ws., though he accepts it as a thoracic aberration, and here again 1 do not agree with him in his synonymy, as ab. blairi, Lem., has not the "dreilappige makel," but a clear confluence of 2+1+3.

Mader on his plate 12, figs. 12 and 13, gives the name ab. *discordia*, Mader, for two distinct formulae and he agrees with me that his ab. *discordia*, will be confined to the formula: $\frac{1}{2}$, 1, 2, 3, 4, 5 (produced upwards to about the centre of spots 2 and 3 like a tadpole), 6.

I propose to name the other :

6.—ab. subdiscordia, mibi, n.ab. Formula $\frac{1}{2}$, 1+5, 2, 3, 4, 6 (plate 12, fig. 13).

B. Coccinella hyb. biabilis, Marriner [Ent. Rec. XXXVIII. 6, p. 81]. Dr. Felice Capra in Boll. d. Soc. Ent. It., Anno. LVIII. N. 7, states that this hybrid is the ab. 10-pustulata, L., of A. 10-punctata, L., and it will be interesting to have Mr. Marriner's views on this point. In this connection reference may be made to a most interesting paper by Mrs. O. A. Merritt-Hawkes, M.Sc., F.E.S., on "Coccinella 10-punctata, L.—A trimorphic Ladybird," in Ent. Mo. May. LXIII.,

C. Coccinella 7-punctata, L.

p. 203.

Mons. Lestage some time ago sent me, very kindly, some diagrams of aberrations of this species, which 1 propose to name as follows :

7.—ab. lestagei, mihi n.ab. Formula: $\frac{1}{2} + 2 + 3 + 2 + 1$.

This is a very striking aberration, in which all the spots are confluent, assuming the form of a large Y. He states it was: "forme belge inédité."

8.—ab. **kirki**, mihi n.ab. Formula: the $\frac{1}{2}$ spot descends in a black line along the suture to below the level of spot 3 and this black line is linked up with 1+2 and separately with 3. This is another similar Belgian form.

Nos. 7 and 8 appear to be distinct from, and should not be confused with ab. *confusa*, Wied. [Zool. May. II. I. 72 (1863)], while Weise's description in B.T. 1879 of ab. *confusa*, Wied.; appears to go much beyond the original description of Wiedemann.

Della Beffa [*Rev. Cocc. It.* Tav. V. figs. 1 and 2 (1913)] does in fact figure my aberrations 7 and 8 under the name of ab. *confusa*, Wied., but omits to figure what I believe to be the true figure of this latter aberration, which was supplied to me by Mons. Lestage. This shows a more or less moon-shaped black blotch from $\frac{1}{2}$, with protrusions at 2, with which it is confluent, and then by a small line with 1, and at 3, with which again it is confluent, to slightly below 3, where the arc rejoins the suture.

9. ab. beffai, mihi, n.ab.

Della Beffa, l.c. Tav. IV. fig. 84, figures this aberration under the name of ab. turcica, Ws., but it is at once distinguished from the typical aberration $(\frac{1}{2}+2)$ by the fact that, instead of a direct confluence, the $\frac{1}{2}$ spot is continued along the suture to a point opposite 2, with which it is then confluent at right angles. Mons. Lestage writing to me in 1924 was of opinion this was a new aberration.

D. Anatis ocelluta, L.

Weise (B.T. 1879) describes his v. subfasciata, as :--

" Normal farbung."

" \mathfrak{P} . Makel 8+9 quer verbunden . . . v. subfasciata" and its formula is definitely: 1, 2, 3, 4, 5, 6, 7, 8+9, 10.

In B.T. (1885), however, he engrafts on this another formula with 3+4+5, but this is not correct and I propose therefore to name this:

10.—ab. ida, mihi. 1, 2, 3+4+5, 6, 7, 8, 9, 10.

E. Harmonia 4-punctata, Pontopp.

(a) Della Beffa (*Rev. Cocc. It.* 172) in 1918 under var. *multimacula* (wrongly spelt *multimaculata*), Heyd., diverges from the latter's description with 6 spots (1, 2, 4, 5, 7, 8) in *Ent. Nach.* 4, 53 (1883) to include specimens with 8–10, 12 (*i.e.*, on both elytra) spots :—

"Elitre con 8-10, 12 punti, 4-5, 6 per elitra. Esistono i punti 1, 2, 3, 4, 5 (Tav. VI., fig. 22); ovvero 1, 2, 4, 5, 7 (Tav. VI. fig. 23); ovvero 1, 2, 3, 4, 5, 7 (Tav. VI., fig. 24); ovvero 1, 2, 4, 5, 7, 8 (Tav. VI. fig. 25)."

It is obvious that only the last mentioned formula is the ab. *multimacula*, Heyd., and the others require new names:

11.-ab. beffai, mihi: 1, 2, 3, 4, 5.

12.—ab. maderi, mihi: 1, 2, 4, 5, 7.

13.—ab. weisei, mihi: 1, 2, 3, 4, 5, 7.

(b) Mader in Entom. Anzieger VI., Nr. 11 (1926) proposes the following two new aberrations:

1. Jede Fid. mit 4 schwarzen P. gleichgültig.

Welchen a pudica, nov. ab.

2. Jede Fid. mit 5 schwarzen P. gleichgültig.

Welchen a incontenta, nov. ab.

As he does not define their respective formulae I do not think these names can stand and in any event they clash with the ab. *multimaculata* of Della Beffa.

(c) Weise (B.T. 1879) describes his v. *pinastri* as having 14 spots, No. 6 being absent, so that his formula is definitely; 1, 2, 3, 4, 5, 7, 8.

Della Beffa (l.c. 1918) under v. *pinastri*, adds: "talora l'8," but this cannot be Weise's aberration and I propose to name it:

14.—ab. donisthorpei, mihi: 1, 2, 3, 4, 5, 6, 7. It may be noted that Weise (B.T. 1885) does not quote spot 6 as missing.

F. Coccinella alpina, Villa.

Dr. F. Capra (Ann. d. Mus. Civ. di Storia Nat. di Genova, Vol. I. II. 30 Oct. 1926) has made a new genus for this species : " Adaliopsis, nov. gen.

"Type of genus—Coccinella alpina, Villa. Suppl. Col. Eur. Dupl. 1835, p. 50, n. 70 (Adalia alpina, auct.).

G. Rhizobins litura, F., var. manra, O'Mahony.

This black variety, found by Mr. O'Mahony on the east end of North Bull, Co. Dublin, has now been named by him [Ent. Mo. Mag. LXIII. 208 (1927)], but it will probably be found in many collections as Sir T. Hudson Beare took it in August, 1925, from Wicken Fen [id. 233] and I find Mr. H. St. J. K. Donisthorpe took other specimens at Mildenhall and Barton Mills (1922) and Burwell Fen (1924).

H. After some years of search I have at last succeeded in purchasing a copy of Weise's *B.T.* II. Heft. *Coccinetlidae*, published at Mödling in 1885, pp. 82, a very nice clean copy bound in boards.

Euxoa tritici, L., and the ab. pseudogothica, Curtis.

By W. PARKINSON CURTIS, F.E.S.

I have read Mr. Wightman's note Vol. XXXIX, p. 169. In my view, Tutt's *subgothica* is a conception founded on a concrete object, but a different conception to, and founded on, a different concrete object from Haworth's *subgothica*.

If Mr. Wightman will read the table on page 46, as well as the letterpress on page 51, he will see that Tutt has defined what he understands by *subgothica*, videlicet:—a *tritici* with the following coloration "ground pale greyish fuscous; with a pale costa; with a dark space between the stigmata and no cuneiform marks," and inferentially with no distinct transverse marking and he adds "=subvar. *subgothica*, Haw."

Feltia subgothica does not comply with Tutt's diagnosis. It fails on the tabular diagnosis at the first step because it is not a tritici. I should hesitate at the "ground pale greyish fuscous," I have only seen some 50 Feltia subgothica but they do not appeal to my eye as "pale greyish fuscous."

On page 51, Tutt says "A great deal of error has arisen in connection with this subvariety of Haworth's. In America it has been used as the name of a closely allied species." Later he says "The *subgothica*, Haw., refers to some British species."

Now what possible inferences can be drawn from such language? Obviously only the following :—

Tutt had in his mind a conception of a colour variation of *tritici*, complying with his above quoted diagnosis, but not the real *subgothica*.

Tutt believed that Haworth had in his mind a conception of an endemic British insect falling in Tutt's view within his above quoted diagnosis and being in fact a form of *tritici*. That the American authors were in error in applying to an extra-British and intra-American species a name, which Haworth had, in Tutt's view, applied to *tritici*.

That such inferences are sound receives confirmation from a perusal of pp. 43, 44, 45, where Tutt says that he believes Guenèe's gypactina